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2015 Financial Benchmarks of Local Food Operations

A STUDY OF THE FINANCIAL PERFORMANCE OF 10 COMMERCIAL VEGETABLE OPERATIONS IN CENTRAL MINNESOTA AND ADDENDUM TO THE 2014 REPORT

Authored by Ryan Pesch and Nathan Hulinsky

Photo by Kristi Link Fernholz

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A special thanks to all growers who participated in this research and shared information about their operations.

We hope this research helps existing growers improve their operations and assists prospective operators in planning their businesses.

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EXECUTIVE SUMMARY

A 2015 University of Minnesota Extension investigation of 10 mixed vegetable enterprises in Central Minnesota found that most are operating profitably. Ten is a small sample size, however, and should not be considered as representative of either the central region of Minnesota or the state as a whole.

The mixed vegetable operations included in the study gross $9,634 per acre in vegetable sales and retain $1,293, on average, after deducting annual cash expenses. Their average net return after depreciation is negative $1,128 per acre. The lion's share of vegetable sales (75 percent) comes from direct marketing channels, such as farmers markets, farm stands, and CSA arrangements. Wholesale marketing channels account for 25 percent of total vegetable sales.

Whole farm financial measurements, which encompass all enterprises (not simply mixed vegetables), show a significant split between operators making efficient use of farm assets to realize good returns and those making a meager income for the size and scope of their operations. In general, the group is not over-leveraged and has reasonable debt to farm ratios. Most farms saw positive increases in net worth during 2015, and half had a positive net farm income.

METHODOLOGY

Detailed information was collected from 10 operators in Central Minnesota about 2015 farm marketing and operating costs and sales by market channel. The study's scope was limited to operations that raise vegetables for sale on less than 12 acres in the 13-county region of Central Minnesota, including Becker, Benton, Cass, Crow Wing, Douglas, Hubbard, Kanabec, Mille Lacs, Morrison, Otter Tail, Stearns, Todd, and Wadena counties. Extension collected all records related to the farm, particularly the vegetable enterprise, but also non-produce enterprises such as dairy or crops.

Considering the sensitivity of the data collected, Extension ensured each participant's information remained confidential. Therefore, specific names and identifying details of the farms are not included in this report.

Data collection procedure

During the spring and winter of 2016, 10 participants were recruited through email to participate in the study, based on contact information compiled from online directories Minnesota Grown and www.localfoods.umn.edu, as well as the SPROUT food hub mailing list. Since 2016 was the second year in a two-year study, 9 of the 10 participants were part of the previous research in 2015. Only results from the 2015 season are presented in this report. A report about 2014 financial returns can be found at http://www.extension.umn.edu/community/.

Each participant was individually interviewed at his or her operation to collect data. All financial information was entered into FINPACK, the University of Minnesota's farm financial software program, for subsequent analysis. Participants received the FINPACK financial analysis and balance sheet reports for their farm, along with summary reports that compared their operation to others in the dataset. Individual financial records input into FINPACK, and while most respondents had very accurate and precise records, they sometimes estimated figures based on past production experience.

Data Caution

Since this report is based on a small sample size of 10 farm operations, it should be noted that the data collected is not statically significant. As such, it is not representative of all farms doing commercial vegetable production in central Minnesota or the state as a whole. In fact, little public information is published about the finances of vegetable farm operations in Minnesota or financial returns of vegetable enterprises in general. The purpose of this study is to provide insights for current vegetable operators that will help improve their farm management, as well as offer a starting point for prospective operators engaged in business planning.

ABOUT THE FARM OPERATIONS

The 10 participating farms ranged in size and type of enterprises they managed. Most integrated at least one livestock-based enterprise, such as broiler production or dairying, with their vegetable enterprise. Others combined crop-based enterprises, such as fruit production or value-added processing, with vegetable growing. In total, sales through these other endeavors account for $267,000, or 78 percent, of total sales for all farms. Farms ranged in size from 5 to 160 acres and dedicated between 0.25 and 5 acres to vegetable production during 2015.

FINANCIAL RETURNS TO MIXED VEGETABLE ENTERPRISE

All study participants separated the sales and expenses for their vegetable business from their other enterprises. Extension then used these figures to calculate the financial returns of the vegetable side of the operation. Considering the variability in data, the range, average, and median measures are presented to provide context for the findings as a whole (Table 1; see Appendix 1 for additional details):

Table 1: Financial returns of mixed vegetable enterprise by size category and all farms (n=10)

	Range	Average	Median
Gross revenue/acre	$44,965 - $1,580	$9,634	$ 4,388
Net cash income/acre	$6,055 - $(2,793)	$ 1,293	$928
Gross margin	72% - (6%)	28%	32%
Depreciation/acre	$9,389 - $291	$ 2,421	$861
Net Return/acre	$5,796 - $(10,016)	$ (1,128)	$ 245

Gross Sales

The farms in this study realized an average of $9,634 per acre (very similar to the average of $9,335 per acre in 2014) but with wide variation among operations. One farm grossed $1,580 per acre, for example, while another grossed $44,965 per acre. The latter was a quarter-acre market garden. Findings suggest that, in general, operators more intensively grow and market vegetables from small market gardens rather than relatively larger ones. While the gross sales of small market gardens are higher per acre, their labor and input expenses are also higher. Additional details about the source of sales are included in the Marketing Mix section.

Net Cash Income

Net cash income is calculated as gross sales minus annual cash expenses, including both direct and overhead expenses. This figure does not include non-monetary expenses, such as depreciation and changes in inventory. The average cash income for all farms is $4,192 per acre.

Gross Margin

A common way of determining net cash income is through a measure of gross margin. Calculated as net cash income divided by gross revenue, gross margin is a percentage of gross sales an operator retains after taking out cash expenses to produce a crop. For example, market gardens in this study kept 36 cents of every dollar sold and therefore had a median gross margin of 36 percent. Study participants experienced a gross margin ranging from 72 percent to 3 percent with average and median gross margins of 25 and 31 percent, respectively (Table 1).

Depreciation

Depreciation is the cost due to aging and wear of assets. In this case, the depreciation of machinery and buildings on the farm were divided by the number of crop acres. Total depreciation averaged $2,421 per acre. Average building depreciation per acre was over double machinery depreciation.

Net Return

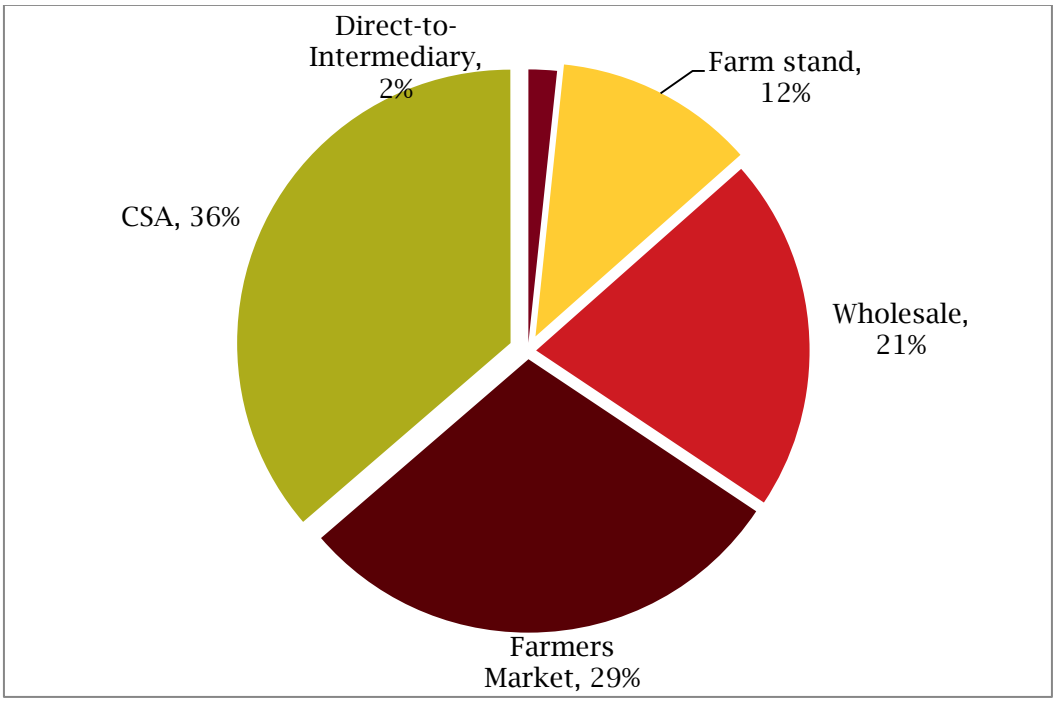
Net return is the return to the enterprise after deducting operating expenses and depreciation. Six of 10 farms had a positive net return, averaging a loss of $1,443 per acre.

MARKETING MIX

The 10 operations participating in the study marketed their products through various marketing channels. Looking closely at the marketing mix of vegetable sales, 77 percent were through direct marketing channels, such as CSA arrangements, farmers markets, and farm stands. The remaining 23 percent were through wholesale marketing channels including institutions, restaurants, and grocers, as well as intermediaries such as food hubs.

There was a split, however, between operations that engaged in substantial wholesale marketing and those that did not. Five had some amount of their sales from wholesale accounts, but only two reported a majority of their sales through them. Four farms had no wholesale accounts, and the remainder only had them as a minor portion of their total marketing mix (Figure 1).

Figure 1: Distribution of Total Produce Sales by Market Channel (n=10)

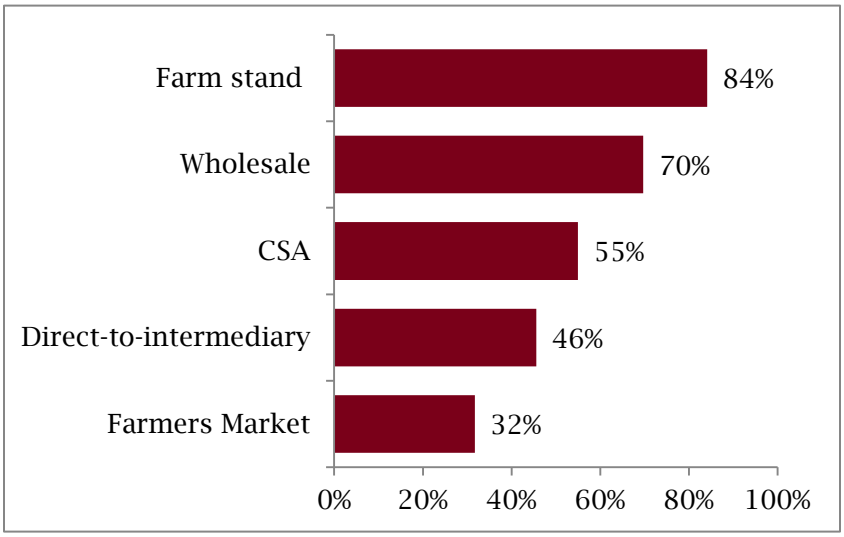


Operations also made sales through other enterprises, which accounted for 78 percent of 2015 total farm sales. Many of these other sales came from livestock-based enterprises (see Whole Farm section for details).

Marketing costs and marketing mix

A common concern for produce operators is the marketing cost of selling in direct marketing channels. The direct costs of transporting produce to sell at a farmers market or delivering CSA boxes decrease profit margins, even though operators are capturing retail prices. In contrast, although wholesale market channels offer a lower price, growers may spend less to sell the product.

Figure 2: Gross margins by marketing channel



After accounting for all direct and labor costs, Extension found the marketing costs of wholesale were relatively low when compared to direct marketing channels. The marketing channel in which operators had the lowest marketing cost per dollar of sales were farm stands, followed by wholesale and CSAs (Figure 2 and Table 2). Overall, farmers markets had

the lowest return on marketing costs.

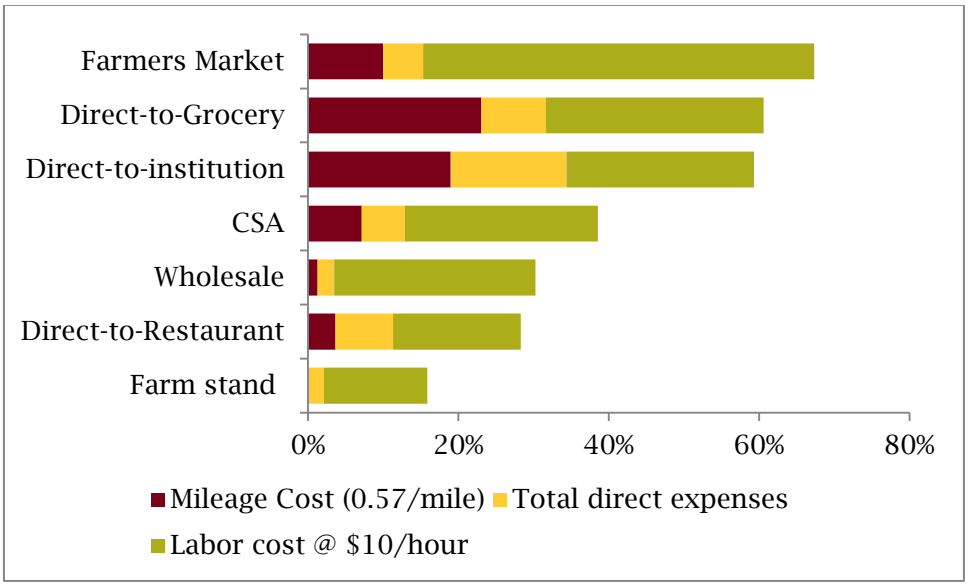
Table 2: Returns over marketing costs for study participants (n=10)

	CSA	Farmers Market	Farm stand	Wholesale	Direct-to-intermediary
Gross revenue	$43,408	$35,013	$14,088	$24,979	$1,992
Total marketing costs	$19,539	$23,901	$2,232	$7,560	$1,083
No. of trips or days	90	157	163	80	38
No. of farms	5	8	5	6	3
Marketing cost analysis by outlet per trip					
Sales	$482	$223	$86	$312	$52
Expenses					
Labor Cost ($10/hr)	$123.75	$115.99	$11.86	$83.69	$12.72
Mileage expense ($0.57/mile)	$65.60	$24.34	$-	$3.90	$8.96
Direct expenses	$27.75	$11.91	$1.84	$6.92	$6.83
Breakeven	$217.10	$152.24	$13.70	$94.51	$28.51
Gross margin	55%	32%	84%	70%	46%

To explain how marketing costs varied across outlet, Extension broke down costs into three components: labor, mileage, and direct expenses. Labor includes total hours spent selling (e.g., at a farmers market), preparing product, and transporting produce. The time spent for all farms was valued at $10 per hour. Mileage cost was calculated as the total miles driven for each outlet times $0.57 per hour, the 2015 federal mileage rate. Direct expenses included advertising, post-harvest packing materials (e.g., waxed boxes), and a portion of utilities, such as telephone calls made to sell product.

Results from the marketing cost analysis show that labor costs involved in selling at farmers markets explains its low return, especially since labor costs are the largest component across all channels. The absence of a mileage cost for self-serve farm stands explains how this particular outlet has the highest return on marketing costs. Low mileage associated with wholesale is also notable. Since foods hubs picked up product on-farm from some producers, this kept marketing costs low. Direct expenses were the smallest component and not significant, with the exception of direct-to-institution sales (Figure 3). Across all marketing channels, however, high mileage costs per acre correlate with low overall returns. Three of the four least profitable vegetable enterprises also had the highest auto and travel expenses (Appendix 1).

Figure 3: Marketing costs components by marketing channel and percent of total marketing costs



EXPENSE BENCHMARKS

One purpose of this project was to develop benchmarks against which farms could compare themselves. Extension calculated the average and median expenses for direct and overhead expenses per acre, based on the mixed vegetable acres of the 10 participating farms (Table 3).

Table 3: Expense benchmarks: average and median expenses per acre (n=10)

Direct Expenses	Average	Median	% of total expense	No. of farms with expense
Seed	$958	$287	9%	10
Fertilizer	$176	$106	2%	7
Supplies	$1,794	$449	10%	8
Hauling and trucking	$59	$54	0%	3
Repair, machinery	$290	$352	2%	3
Crop chemicals	$22	$22	0%	2
Custom hire	$1,832	$1,832	1%	2
Fuel and oil	$194	$110	3%	9
Repair, buildings	$235	$235	1%	1
Hired labor	$246	$247	3%	4
Conservation Expenses	$517	$517	0%	1
Overhead Expenses				
Real estate taxes	$394	$184	3%	8
Farm insurance	$278	$123	4%	8
Post-harvest packaging	$208	$107	3%	10
Machinery depreciation	$633	$338	13%	10
Building depreciation	$1,300	$421	12%	6

Real estate taxes	$394	$184	3%	8
Dues & professional fees	$260	$380	1%	3
Office	$141	$17	0%	6
Marketing	$309	$221	3%	8
Miscellaneous	$ 218	$218	1%	2
Utilities	$1,821	$314	5%	5
Auto and Travel Expense	$3,196	$1,060	20%	9
Building leases	$150	$150	0%	1
Total	$11,077	$3,972	100%	10
Direct	$3,340	$963	30%	10
Overhead	$7,738	$2,680	70%	10

The highest expense category was auto and truck, which primarily encompassed vegetable transportation. The most important direct cost category was supplies, which included harvesting items such as crates and wax boxes, small tools and equipment, and growing supplies (e.g., drip tape, plastic mulch, and irrigation hoses). Overall, overhead expenses accounted for a much greater portion of annual costs than direct costs, standing at 70 percent of total expenses.

WHOLE FARM ANALYSIS

A whole farm analysis helps understand the farm in its entirety, not just one specific enterprise such as vegetable growing. Other enterprises vegetable growers may have include livestock, dairy, or row crops. A whole farm analysis of the data from the vegetable growers included in this study provides an understanding of the income sources and distribution between the different farm commodities. It also looks at the income statements and balance sheets for each enterprise on the farm.

A comprehensive whole farm analyses encompasses over 21 different ratios and values to evaluate the farms' success and efficiency. Extension observed the Farm Financial Standards Council, which establishes and standardizes financial reporting for agriculture operations. Five major ratios and values are the focus of this report and will show the trends and profitability of the mixed vegetable growers (see sidebar right). A full report of financial ratios is found in Appendix 2.

Descriptions of Financial Terms

1. **Current Ratio** = Current assets / current liabilities

*Tells if current assets can pay off debt due in 12 months.

2. **Net Farm Income** = Gross income – total expenses +/- inventory changes – depreciation

*Owners' return to labor, management, and equity invested in the business.

3. **Rate of Return on Assets** = Return on assets / average farm assets

4. **Percent Change in Net Worth** = (ending net worth – beginning net worth) / beginning net worth

*Shows if and how much the operation grew the business's net worth in percentage.

5. **Farm Debt to Asset** = total liabilities / total assets

*The bank's share of the farm. Higher ratio signals higher financial risk.

The whole farm analysis provides more in-depth detail about the farming operation, decoding not just what happens to revenues and expenses but also changes to the values of the business. For example, a change in net worth may be significantly larger one year compared to the previous year. While one may suspect a more profitable year led to the increase in net worth, an in-depth whole farm analysis shows the increase was actually the result of an increase from $2,500 to $4,000 per acre of land on the farm.

Two separate financial record-keeping documents are used in this analysis—balance sheets and income statements.

Balance Sheet

A balance sheet lists the assets, liabilities, and net worth of a farming operation at a specific point in time. Assets are what the business owns, liabilities are what the farm owes, and net worth is the difference between the assets and liabilities. Multiple balance sheets from different points in time show business trends. In this analysis, beginning and ending balance sheets are used to measure change from one year to the next.

Income Statement

An income statement measures profitability. In this analysis, an accrual adjusted income statement is used to adjust the business' cash revenue and expenses for changes in inventory and depreciation. This method better analyzes true profitability of the operating year, factoring in all income and expenses. Revenues are recorded when earned, not when the money is received. Likewise, expenses are recognized when incurred, not paid. For example, fertilizer purchased and paid for in December 2016 is not truly a 2016 operating expense, since it will not be applied until the 2017 crop year. With accrual, an adjusted income statement reflects the cash expense and increase in fertilizer inventory. Hence, the operation's net farm income will increase for the year, as the December fertilizer purchase is not a cash outlay for the 2016 production year. A farm's Schedule F is an example of a simple cash income statement. This analysis takes the cash income statement a step further, however, to better reflect true profitability.

Financial Summary

The few high-producing, high-profit farms skew the vegetable growers' average value. These farms are more diversified, growing not only vegetables but also having several other enterprises within their farming operation (e.g., dairy or other crops). The highest producing farm, for example, generates more revenue from its non-vegetable enterprises than its vegetable one.

Additionally, the highest earning farms increase the average values for 4 of 5 financial measures, making all averages appear decently strong. The median is a more accurate depiction of the typical vegetable growing operation in Minnesota, as net worth changes are higher in the median than the average. As one can see from the median farm values, there is some profitability and net worth increase. Diversification increases the opportunities for profit, growing the operation, and increasing net worth (Table 4).

Extension sorted farms into five quintiles according to net farm income, as presented in the following tables and charts. The low 20 percent group includes the 20 percent of farms with the lowest net farm income (in this case, two farms). These quintiles progress through each 20 percent level across the chart.

Table 4: Summary of financial terms

Based on Net Farm Income	Low 20%	20-40%	40-60%	60-80%	High 20 %	Median	Average
Current ratio	3.07	1.15	0.92	-	2.21	0.93	2.13
Net farm income	$ (2,363)	$ (950)	$839	$3,897	$45,673	$839	$9,419
RTA	-0.1%	1.7%	-1.3%	1.6%	11.3%	1.8%	4.3%
Change in net worth	11.0%	-3.0%	0.0%	7.0%	16.0%	8.0%	7.0%
Farm debt to asset	1.0%	53.0%	44.6%	-	38.0%	2.0%	27.0%

Appropriate values for current ratio and rate of return on farm assets are shown below in Figure 4 (Becker et al., 2014). As one can see, red indicates a vulnerable position, yellow a moderate position, and green a strong position. These benchmarks provide context to the whole farm financial measures and indicate a farm's financial position.

Figure 4: Farm Financial Benchmarks

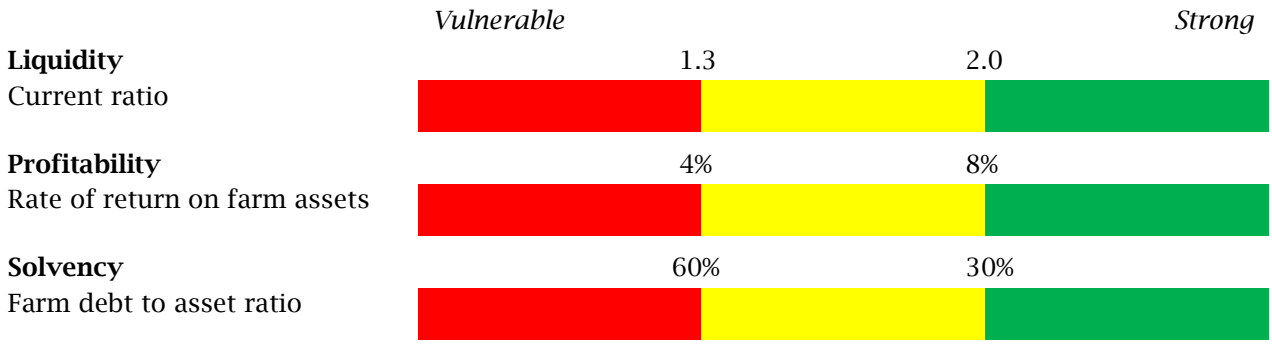
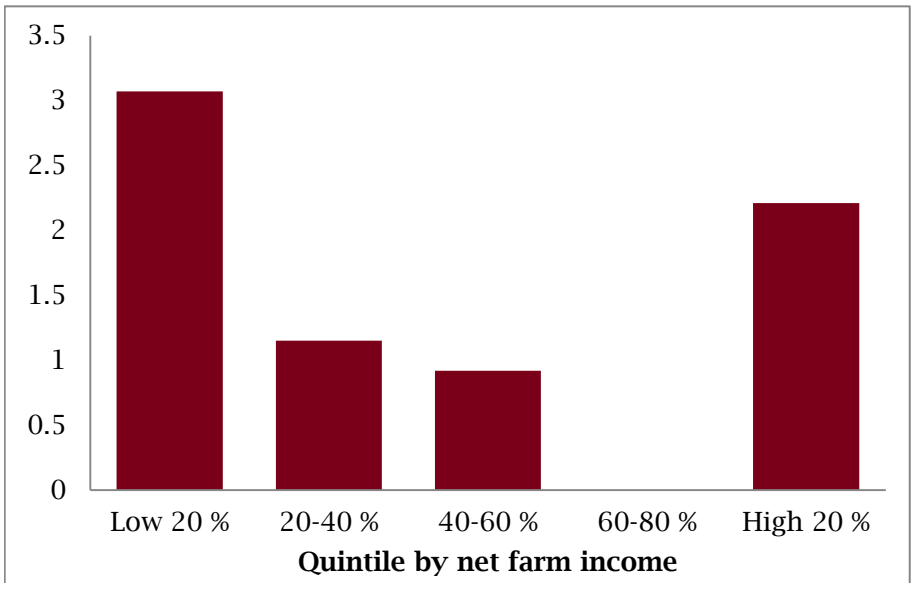


Figure 5: Current ratio by quintile



Liquidity

Liquidity indicates the ability of the business to meet financial obligations as they incur. This is the capability to generate cash to pay for items such as loan payments, taxes, and living expenses. The current ratio indicates whether or not the farm's current assets can pay current liabilities. Current assets are

easier to convert to cash compared to more long-term assets. For this reason, they are a good measure of liquidity, especially if margins are tight.

The median and average current ratios for the group stand at 0.93 and 2.13, respectively. These numbers point to either a weak or strong measure, based on the financial benchmarks and which figure you use. Looking at the farms organized by quintile from least profitable to most profitable, both the lowest 20 percent and highest 20 percent have a strong current ratio above 2 (Figure 5). The current ratio was in the same vulnerable category for all other quintiles.

Profitability

Net farm income is income earned before any compensation for owner labor and management, and it is a good measure of profitability. Net farm income represents the return to the operator's labor, management, and net worth. It is the total amount of the farm's contributions to family living, income taxes, and net worth growth.

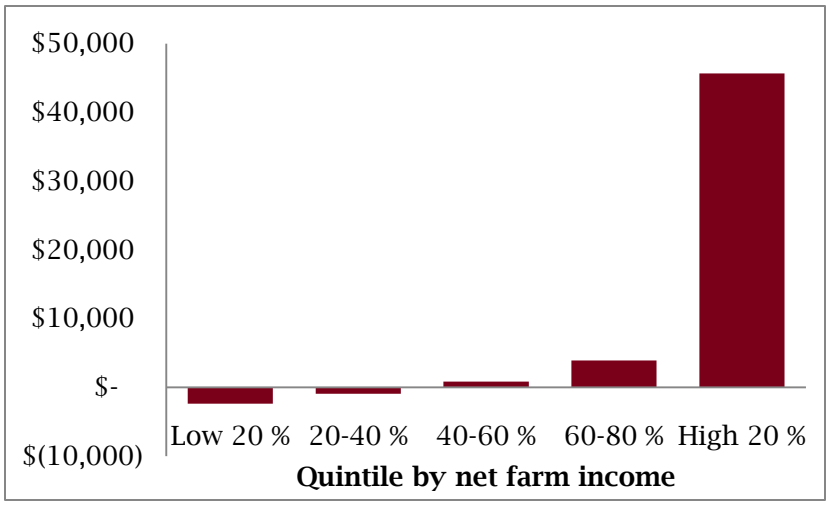


Figure 6: Net farm income by quintile

Since median and average net farm incomes were so different—$839 and $9,419, respectively—one can see the wide variation in the data. The top 20 percent of income earners pulled the average quite high (Table 4). Net farm income was negative for the low 40 percent, with the next 20 percent quintile under $1,000 in income (Figure 6).

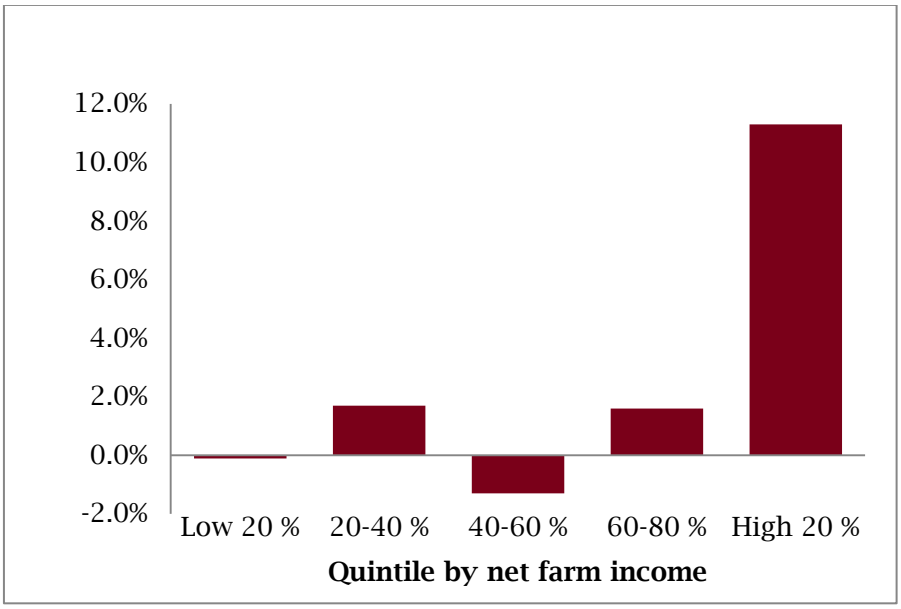
Net farm income is not part of the stoplight scorecard analysis (as shown in Figure 4) because it depends on farm size. A net farm income of $1,000 may be quite good for a farm with total assets of $5,000, but it would not be quite as good for a farm with assets of $500,000. Overall, a positive level is desired.

Rate of return on assets

Rate of return on farm assets measures the net return per each asset as a dollar figure. This also signifies how effectively the farm utilizes its assets, answering the question, "Does the farm have too many unproductive assets?"

The rate of return on farm assets is below 2 percent for all but the top 20 percent quintile. According to the stoplight scorecard, anything under 4 percent was in the vulnerable category (Figure 4).

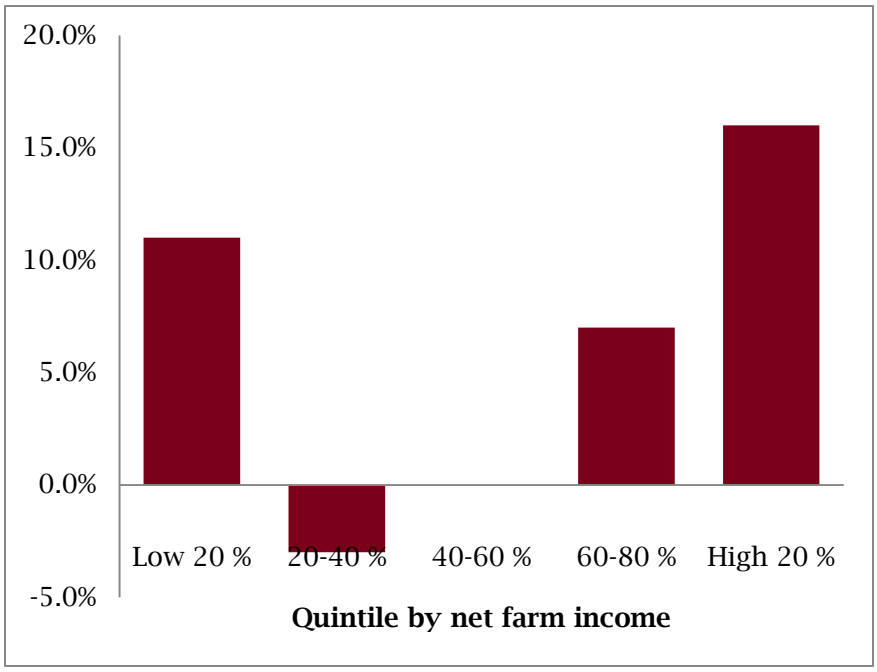
Figure 7: Return to assets by quintile



Solvency

Solvency measures the ability of the business to pay off all its debts if sold today. In essence, this is a gauge of the farm's financial risk. Two financial measures provide insight into the solvency of participants' operations—change in net worth and farm debt to asset ratio.

Figure 8: Change in net worth by quintile

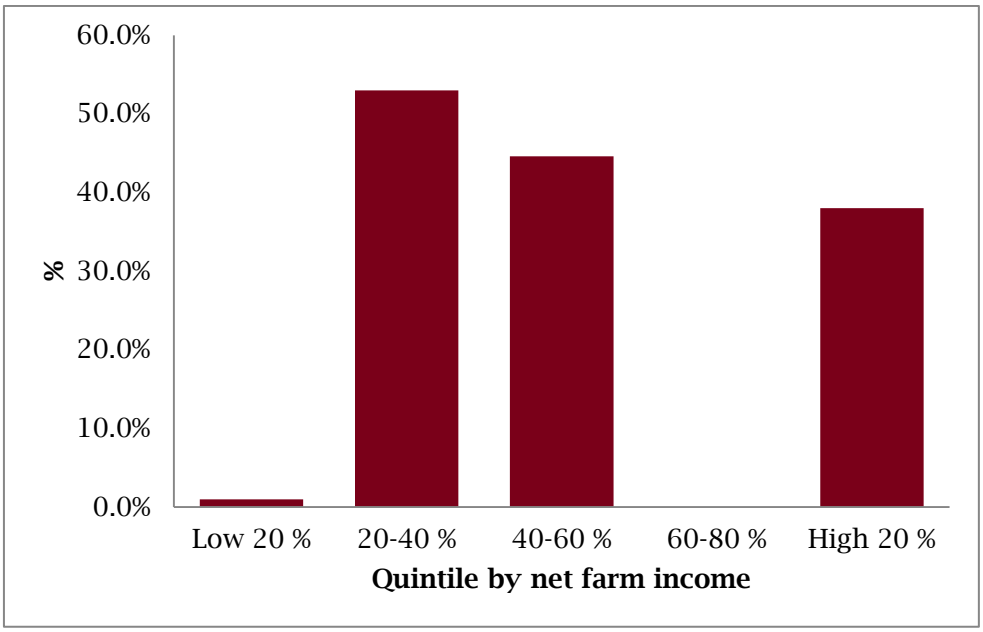


Net worth is simply assets minus liabilities, and change in net worth is a comparison of the two from one year to the next. A positive change in net worth denotes growth in the business, whereas a zero or negative change shows a contraction. The inability of a business to maintain a positive net worth change will cause distress, and it may jeopardize future business operations.

Change in net worth is strongest for the highest and lowest quintile (Figure 8). This may be explained by the limited net worth gained by the producers, skewing the data slightly.

The higher the farm debt to asset ratio, the more likely an outside investor (e.g., a bank) owns the farm. A higher debt to asset ratio indicates limited additional borrowing capacity and higher financial risk. One can see the smallest quintile group has limited debt (Figure 9). The three highest groups—20-40, 40-60, and high 20 percent—may indicate farms are expanding, causing the higher debt to asset ratio.

Figure 9: Farm debt to asset ratio by quintile



See Appendix 2 for full details of whole farm analysis.

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Appendix 1: 2015 Vegetable Enterprise Data per Farm

	Farm1	Farm2	Farm3	Farm4	Farm5	Farm6	Farm7	Farm8	Farm9	Farm10	*Average*	*Median*		
Gross sales (all enterprises)	$ 255,975	$ 50,129	$ 11,687	$ 3,159	$ 11,237	$ 7,892	$ 25,236	$ 3,386	$ 13,900	$ 8,891				
Produce sales	$ 10,651	$ 41,031	$ 10,342	$ 3,159	$ 7,457	$ 6,554	$ 25,236	$ 3,386	$ 13,900	$ 3,001				
Produce as percent of all sales	4%	82%	88%	100%	66%	83%	100%	100%	100%	34%				
Acres of mixed vegetables	4	3.5	0.23	2	2	3.5	5	0.3	4	0.3	2.5	2.8		
Produce sales/acre	$ 2,663	$ 11,723	$ 44,965	$ 1,580	$ 3,729	$ 1,873	$ 5,047	$ 11,287	$ 3,475	$ 10,003	$ 9,634	$ 4,388		
Direct Expenses/acre											*Average*	*Median*	*% of total expenses*	*No. of farms with expense*
Seed	$ 235	$ 796	$ 1,757	$ 213	$ 212	$ 69	$ 205	$ 4,993	$ 339	$ 760	$ 958	$ 287	9%	10
Fertilizer	$ 46	$ 291	$ 509	$ 140	$ 100		$ 42		$ 106		$ 176	$ 106	1%	7
Supplies	$ 214	$ 814	$ 10,109	$ 579			$ 171	$ 2,097	$ 319	$ 50	$ 1,794	$ 449	13%	8
Hauling and trucking	$ 54		$ 104				$ 20				$ 59	$ 54	0%	3
Repair, machinery	$ 367	$ 149	$ 352								$ 290	$ 352	1%	3
Crop chemicals		$ 40					$ 4				$ 22	$ 22	0%	2
Custom hire		$ 120	$ 3,543								$ 1,832	$ 1,832	3%	2
Fuel & oil		$ 436	$ 652	$ 80	$ 30	$ 133	$ 85	$ 153	$ 110	$ 66	$ 194	$ 110	2%	9
Repair, buildings		$ 235									$ 235	$ 235	0%	1
Hired labor			$ 426			$ 65	$ 343		$ 150		$ 246	$ 247	1%	4
Conservation Exp			$ 517								$ 517	$ 517	0%	1
Overhead Expenses/acre											*Average*	*Median*	*% of total expenses*	*No. of farms with expense*
Farm insurance		$ 227	$ 1,170	$ 49	$ 60	$ 54	$ 430		$ 185	$ 53	$ 278	$ 123	2%	8
Post-Harvest Packaging	$ 115	$ 253	$ 904	$ 60	$ 35	$ 42	$ 100	$ 340	$ 60	$ 167	$ 208	$ 107	2%	10
Real estate taxes	$ 211	$ 123	$ 1,444		$ 20		$ 156	$ 930	$ 216	$ 50	$ 394	$ 184	3%	8
Dues & professional fees	$ 8	$ 380	$ 391								$ 260	$ 380	1%	3
Office	$ 10	$ 8	$ 630			$ 24	$ 4			$ 168	$ 141	$ 17	1%	6
Advertising		$ 297	$ 983		$ 215	$ 147	$ 57	$ 500	$ 50	$ 227	$ 309	$ 221	2%	8
Miscellaneous			$ 261				$ 176				$ 218	$ 218	0%	2
Utilities		$ 314	$ 7,470			$ 278	$ 178			$ 867	$ 1,821	$ 314	8%	5
Auto and Travel Expense		$ 1,060	$ 15,091	$ 115	$ 207	$ 1,089	$ 901	$ 1,820	$ 262	$ 8,224	$ 3,196	$ 1,060	26%	9
Building leases					$ 150						$ 150	$ 150	0%	1
Total Cash Expenses/acre	$ 1,260	$ 5,544	$ 46,314	$ 1,235	$ 1,029	$ 1,900	$ 2,871	$ 10,833	$ 1,797	$ 10,631	$ 8,341	$ 2,385		
Direct/acre	$ 916	$ 2,881	$ 17,970	$ 1,011	$ 342	$ 267	$ 869	$ 7,243	$ 1,024	$ 876	$ 3,340	$ 963		
Return over Direct	66%	75%	60%	36%	91%	86%	83%	36%	71%	91%	69%	73%		
Overhead/acre	$ 344	$ 2,663	$ 28,344	$ 224	$ 687	$ 1,633	$ 2,001	$ 3,590	$ 773	$ 9,755	$ 5,002	$ 1,817		
Return over Direct and Overhead	53%	53%	-3%	22%	72%	-1%	43%	4%	48%	-6%	28%	32%		
Net Cash Income/acre	$ 1,403	$ 6,179	$ (1,349)	$ 345	$ 2,700	$ (28)	$ 2,177	$ 453	$ 1,678	$ (627)	$ 1,293	$ 928		
Depreciation per acre	$ 363	$ 382	$ 6,848	$ 291	$ 500	$ 558	$ 1,741	$ 2,974	$ 1,163	$ 9,389	$ 2,421	$ 861		
Machinery depreciation	$ 347	$ 140	$ 1,339	$ 291	$ 310	$ 329	$ 1,155	$ 1,733	$ 564	$ 126	$ 633	$ 338	6%	10
Building depreciation	$ 16	$ 243	$ 5,509		$ 190	$ 229	$ 585	$ 1,241	$ 599	$ 9,263	$ 1,986	$ 585	16%	9
Net return per acre	$ 1,040	$ 5,796	$ (8,197)	$ 54	$ 2,199	$ (586)	$ 436	$ (2,520)	$ 515	$ (10,016)	$ (1,128)	$ 245		

Appendix 2: Whole Farm Financial Summary

Financial Summary
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	20 - 40%	40 - 60%	60 - 80%	High 20%
Number of farms	10	2	2	2	2	2
Income Statement						
Gross cash farm income	39,149	9,790	8,643	14,198	10,064	153,052
Total cash farm expense	31,232	11,246	5,201	8,864	8,737	122,112
Net cash farm income	7,917	-1,457	3,443	5,334	1,327	30,940
Inventory change	4,573	1,337	-1,174	-1,547	3,628	20,624
Depreciation	-3,087	-2,244	-3,218	-2,948	-1,133	-5,890
Net farm income from operations	9,404	-2,363	-950	839	3,822	45,673
Gain or loss on capital sales	15	-	-	-	75	-
Average net farm income	9,419	-2,363	-950	839	3,897	45,673
Median net farm income	839	-2,363	-950	839	3,897	45,673
Profitability (cost)						
Rate of return on assets	3.5 %	-1.4 %	-0.8 %	-2.8 %	2.2 %	9.9 %
Rate of return on equity	5.0 %	-1.4 %	-2.0 %	-9.3 %	2.2 %	17.9 %
Operating profit margin	25.4 %	-24.5 %	-14.4 %	-21.2 %	29.2 %	41.8 %
Asset turnover rate	13.7 %	5.7 %	5.4 %	13.0 %	7.7 %	23.6 %
Profitability (market)						
Rate of return on assets	4.3 %	-0.1 %	1.7 %	-1.3 %	1.6 %	11.3 %
Rate of return on equity	5.9 %	-0.1 %	3.3 %	-4.3 %	1.6 %	19.6 %
Operating profit margin	36.9 %	-1.2 %	45.5 %	-12.7 %	28.7 %	50.3 %
Asset turnover rate	11.7 %	5.5 %	3.8 %	10.5 %	5.6 %	22.5 %
Liquidity & Repayment (end of year)						
Current assets	9,132	2,407	4,728	1,565	4,025	32,935
Current liabilities	4,296	784	4,116	1,707	-	14,872
Current ratio	2.13	3.07	1.15	0.92	-	2.21
Working capital	4,836	1,622	612	-143	4,025	18,063
Working capital to gross inc	11.0 %	15.0 %	8.8 %	-1.0 %	29.1 %	10.3 %
Term debt coverage ratio	1.67	6.36	-2.91	-3.47	-	3.46
Replacement coverage ratio	1.19	4.22	-2.60	-0.84	0.07	3.08
Term debt to EBITDA	4.31	-50.55	26.45	11.91	-	2.85
Solvency (end of year at cost)						
Number of farms	10	2	2	2	2	2
Total assets	313,588	200,162	148,945	462,339	280,577	475,917
Total liabilities	98,495	68,505	86,979	192,926	-	144,068
Net worth	215,093	131,657	61,966	269,414	280,577	331,849
Net worth change	10,605	16,719	-27,893	-7,927	23,299	48,828
Farm debt to asset ratio	32 %	1 %	72 %	58 %	- %	40 %
Total debt to asset ratio	31 %	34 %	58 %	42 %	- %	30 %
Change in earned net worth %	5 %	15 %	-31 %	-3 %	9 %	17 %
Solvency (end of year at market)						
Number of farms	10	2	2	2	2	2
Total assets	386,558	269,067	243,441	522,223	357,090	540,970
Total liabilities	99,913	68,505	94,066	192,926	-	144,068
Net worth	286,645	200,562	149,375	329,298	357,090	396,902
Total net worth change	18,858	19,249	-4,615	337	23,622	55,695
Farm debt to asset ratio	27 %	1 %	53 %	46 %	- %	38 %
Total debt to asset ratio	26 %	25 %	39 %	37 %	- %	27 %
Change in total net worth %	7 %	11 %	-3 %	0 %	7 %	16 %
Nonfarm Information						
Net nonfarm income	35,370	64,142	25,284	20,836	38,048	28,541
Crop Acres						
Total crop acres	2	2	2	4	1	4
Total crop acres owned	2	2	2	4	1	4
Total crop acres cash rented	-	-	-	-	-	-
Total crop acres share rented	-	-	-	-	-	-
Machinery value per crop acre	9,141	7,647	9,770	11,298	18,272	4,710

Financial Standards Measures
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*20 - 40%*	*40 - 60%*	*60 - 80%*	*High 20%*
Number of farms	10	2	2	2	2	2
Liquidity						
Current ratio	2.13	3.07	1.15	0.92	-	2.21
Working capital	4,836	1,622	612	-143	4,025	18,063
Working capital to gross inc	11.0 %	15.0 %	8.8 %	-1.0 %	29.1 %	10.3 %
Solvency (market)						
Farm debt to asset ratio	27 %	1 %	53 %	46 %	- %	38 %
Farm equity to asset ratio	73 %	99 %	47 %	54 %	100 %	62 %
Farm debt to equity ratio	0.38	0.01	1.15	0.87	-	0.62
Profitability (cost)						
Rate of return on farm assets	3.5 %	-1.4 %	-0.8 %	-2.8 %	2.2 %	9.9 %
Rate of return on farm equity	5.0 %	-1.4 %	-2.0 %	-9.3 %	2.2 %	17.9 %
Operating profit margin	25.4 %	-24.5 %	-14.4 %	-21.2 %	29.2 %	41.8 %
Net farm income	9,419	-2,363	-950	839	3,897	45,673
EBITDA	12,699	-142	2,268	5,061	4,955	51,355
Repayment Capacity						
Capital debt repayment capacity	8,549	16,407	-20,514	-4,336	179	51,011
Capital debt repayment margin	3,426	13,827	-27,565	-5,586	179	36,275
Replacement margin	1,363	12,521	-28,390	-9,524	-2,224	34,435
Term debt coverage ratio	1.67	6.36	-2.91	-3.47	-	3.46
Replacement coverage ratio	1.19	4.22	-2.60	-0.84	0.07	3.08
Efficiency						
Asset turnover rate (cost)	13.7 %	5.7 %	5.4 %	13.0 %	7.7 %	23.6 %
Operating expense ratio	71.2 %	101.3 %	67.4 %	62.8 %	64.2 %	70.7 %
Depreciation expense ratio	7.0 %	20.8 %	46.2 %	21.6 %	8.2 %	3.4 %
Interest expense ratio	0.5 %	-0.2 %	- %	9.4 %	- %	-0.1 %
Net farm income ratio	21.4 %	-21.9 %	-13.6 %	6.2 %	28.2 %	26.1 %

Summary Farm Income Statement
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*20 - 40%*	*40 - 60%*	*60 - 80%*	*High 20%*
Number of farms	10	2	2	2	2	2
Crop sales	12,472	8,448	8,643	14,198	5,229	25,841
Crop inventory change	4,621	-	-	-227	3,175	20,158
Gross crop income	17,093	8,448	8,643	13,971	8,404	45,999
Livestock sales	25,794	1,307	-	-	2,945	124,720
Livestock inventory change	-199	400	-	-	-803	-590
Gross livestock income	25,596	1,707	-	-	2,143	124,130
Government payments	7	35	-	-	-	-
Other cash farm income	876	-	-	-	1,890	2,492
Change in accounts receivable	-100	-	-500	-	-	-
Gain or loss on hedging accounts	-	-	-	-	-	-
Change in other assets	-530	-	-1,033	-471	150	-1,297
Gain or loss on breeding lvst	1,137	614	-144	120	1,255	3,838
Gross farm income	44,078	10,804	6,966	13,620	13,842	175,160
Cash operating expenses	31,195	11,246	5,201	8,680	8,737	122,112
Change in prepaids and supplies	413	-263	-103	-311	25	2,718
Change in growing crops	-94	-20	-400	-	125	-175
Change in accounts payable	-135	-18	-	191	-	-849
Depreciation	3,087	2,244	3,218	2,948	1,133	5,890
Total operating expense	34,466	13,190	7,916	11,507	10,020	129,696
Interest paid	37	-	-	184	-	-
Change in accrued interest	172	-22	-	1,091	-	-209
Total interest expense	209	-22	-	1,274	-	-209
Total expenses	34,674	13,167	7,916	12,781	10,020	129,487
Net farm income from operations	9,404	-2,363	-950	839	3,822	45,673
Gain or loss on capital sales	15	-	-	-	75	-
Net farm income	9,419	-2,363	-950	839	3,897	45,673